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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,622	04/22/2004	Eric Lawrence Barsness	ROC920040065US1	7310
30206	7590	11/16/2007		
IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER BULLOCK JR, LEWIS ALEXANDER	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/829,622

Applicant(s)

BARSNESS ET AL.

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The cited claims detail an apparatus comprising means for performing the cited operations and a signal-bearing medium encoding instructions for performing the cited steps. Neither claim sets fit a statutory category of invention. The apparatus claims are software per se, in that there is no hardware or physical structure to constitute a system / product. The apparatus is a software program having various functions / sub-software structures that when perform are intended to manipulate physical components, i.e. a processor. The apparatus itself, which is what the claims is directed toward, is all software. The signal bearing medium as detailed in the specification on page 12, is a wireless communication, e.g. a signal. Signals are not methods, products, composition of matters, or articles of manufacture. Therefore, they do not fit in the statutory category of inventions.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by "Dynamic Resource Brokering for Multi-User Query Execution" by Diane L. DAVIDSON et al.

As to claims 1 and 4, DAVIDSON teaches a method comprising: determining whether a task (query) is allowed to use a service-enabled resource (resources such as memory, disk bandwidth, processor bandwidth), wherein the service-enabled resource is disabled until a fee is paid (via the query is not the highest bidder and therefore the currency is not paid and the query is not given the additional resource); and if the determining is true, allocating the service-enabled resource to the task (via the query is the highest bidder, the currency has been paid and the additional resource is given to the query); if the determining is false, allocating a non-service enabled resource to the task (via all entered queries are allocated their minimum resources) (see pg. 281-282, Introduction; pg. 283-284, Resource Broker Framework, in particular, (pg. 283) "When the query does gain admission to the system, the operators in the query are permitted to bid for resources...(pg. 284) When a query is scheduled, its operators become eligible to bid for resources under the control of the allocation policy. Each bidder, or operator is guaranteed some resource allocation: the amount of this allocation is a policy decision but is at least the minimum amount of resources that the operator requires to execute...Remaining resources are then sold to the highest bidder...The broker dynamically adapts to changes in the workload by adjusting previous resource

allocation decisions, necessitating adaptable algorithms. The operators must bid for resources multiple times during their execution, where the result of a bid may be an increase, decrease, or no change in the operator's previous allocation.").

As to claim 2, DAVIDSON teaches the service-enabled resource comprises a processor in a multi-processor system (processor bandwidth) (pg. 281, Introduction; pg. 284, Broker Implementation Issues) and the allocating comprises dispatching the task to the processor (via the query is allocated to the processor) (pg. 281, Introduction, "Scheduling new queries is controlled by the admission policy.."; pg. 284, "The admission policy controls resource contention by scheduling new queries for execution.").

As to claim 3, DAVIDSON teaches adding the processor to a shared pool associated with a partition to which the task belongs (via associating the resource / processor bandwidth to a query, thereby adding the resource / processor bandwidth to the resources / minimum resources already associated with the query) (see pg. 281-282, Introduction; pg. 283-284, Resource Broker Framework, in particular, (pg. 283) "When the query does gain admission to the system, the operators in the query are permitted to bid for resources...(pg. 284) When a query is scheduled, its operators become eligible to bid for resources under the control of the allocation policy. Each bidder, or operator is guaranteed some resource allocation: the amount of this allocation is a policy decision but is at least the minimum amount of resources that the

operator requires to execute...Remaining resources are then sold to the highest bidder...The broker dynamically adapts to changes in the workload by adjusting previous resource allocation decisions, necessitating adaptable algorithms. The operators must bid for resources multiple times during their execution, where the result of a bid may be an increase, decrease, or no change in the operator's previous allocation.").

As to claim 5-7, reference is made to an apparatus that corresponds to the method of claims 1-4 and is therefore met by the rejection of claims 1-4 above.

As to claim 8, DAVIDSON teaches means for dedicating the processor to a partition to which the task belongs if the determining is true (via associating the resource / processor bandwidth to a query, thereby adding the resource / processor bandwidth to the resources / minimum resources already associated with the query) (see pg. 281-282, Introduction; pg. 283-284, Resource Broker Framework, in particular, (pg. 283) "When the query does gain admission to the system, the operators in the query are permitted to bid for resources...(pg. 284) When a query is scheduled, its operators become eligible to bid for resources under the control of the allocation policy. Each bidder, or operator is guaranteed some resource allocation: the amount of this allocation is a policy decision but is at least the minimum amount of resources that the operator requires to execute...Remaining resources are then sold to the highest bidder...The broker dynamically adapts to changes in the workload by adjusting

previous resource allocation decisions, necessitating adaptable algorithms. The operators must bid for resources multiple times during their execution, where the result of a bid may be an increase, decrease, or no change in the operator's previous allocation.").

As to claim 9, reference is made to a signal-bearing medium that corresponds to the method of claims 1 and 4 and is therefore met by the rejection of claims 1 and 4.

As to claims 10-12, DAVIDSON teaches the resource comprises memory (memory), I/O card (disk bandwidth), and network bandwidth (interconnection bandwidth) (pg. 284, Broker Implementation Issues, ...each node has a broker to manage intra-node resources (i.e. memory, disk bandwidth, and processor bandwidth) and a global broker could manage global resources, such as interconnection bandwidth...).

As to claim 13 and 14, reference is made to a computer system that corresponds to the method of claims 1, 3 and 4 and is therefore met by the rejection of claims 1, 3, and 4 above.

As to claim 15, refer to claim 8 for rejection.

As to claim 16, DAVIDSON teaches the broker handles the bidding and determines the highest bidder to the system-wide performance objective such that additional resources are sold to the query that greatly achieves the objective. It is inherent to the teachings of DAVIDSON that the broker knows all the queries, their resources, and their load in order to perform objective determination.

As to claims 17-20, refer to claims 1-4.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

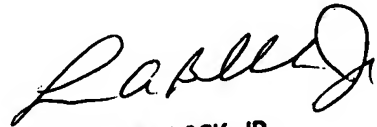


Application/Control Number:  
10/829,622  
Art Unit: 2195

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 10, 2007

  
LEWIS A. BULLOCK, JR.  
PRIMARY EXAMINER